CAUTION: These instructions are intended for use by professional mechanics who are trained in the proper use of power and hand tools, using appropriate safety precautions (including eye protection).

Winslow® Lube Oil Full-Flow – Type 2 Filters Service Instructions

Parts List

<table>
<thead>
<tr>
<th>Part</th>
<th>Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Cover</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>O-Ring</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Housing</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Plugs (NPT)</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>Filter Elements</td>
<td>See Ordering Information on Page 5</td>
</tr>
<tr>
<td>F</td>
<td>Internal Component Kit</td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>T-Bolt Kit</td>
<td></td>
</tr>
</tbody>
</table>

![Diagram of parts A, B, C, D, E, F, G with internal components for 95631A, 95731A, 95831A]
Introduction

Winslow® filter elements must be changed periodically to assure the high level of filtering efficiencies required. We recommend that the elements be changed when the pressure differential across the filter reaches the maximum allowable pressure drop as recommended by the manufacturer. Excessive pressure differential across the elements could result in reduced flow.

When (at normal operating conditions) the filter differential increase is close to, or has arrived at, the maximum differential pressure, the elements must be changed. Ideally, filter elements should be changed when the differential pressure increases to 5-7 PSID (34.5-48.3 kPa) above the initial (clean element) differential pressure. If the element change-out is not feasible at that time, the filter element can be left in service up to 12 PSID (82.7 kPa). However, this higher pressure may force trapped particles through the filter element.

To determine the correct pressure differential:

- Note the pressure drop between the filter inlet and outlet when clean elements are installed and the system is up to normal operating flow, temperature, and pressure.
- Periodically check the gradual increase of the filter differential pressure as the filter accumulates hours of operating service.
- If an optional relief valve is installed, the maximum allowable pressure loss (ΔP) should be below the relief valve minimum opening pressure.

If no engine specification is known or given, filters should be changed out at 5-7 PSID (34.5-48.3 kPa) above initial differential pressure. Initial differential pressure should be 3-5 PSID (20.7-34.5 kPa) (an initial differential pressure less than 3 PSID (20.7 kPa) is acceptable, but a smaller filter could probably be used).

Servicing the Filter

Removing the Filter Elements

1. Shut off the flow to the filter. Isolate the filter, if possible, by closing the main upstream valve and then the main downstream valve.
2. Shut off electrical power to any accessories attached to the vessel.
3. Remove the air vent plug to equalize the pressure in the tank.
4. Remove the “dirty oil” drain plug (upper plug) and completely drain the filter chamber.

⚠️ CAUTION Fluid may be hot!

Figure 1 – Removing the Air Vent Plug

Figure 2 – Removing the “Dirty Oil” Drain Plug
5. Loosen the nuts on the cover until the T-bolts are free to swing out of position.

6. Lift the cover STRAIGHT UP.

⚠️ CAUTION To prevent damage to the cover gasket and the sealing surfaces, DO NOT SLIDE THE COVER OFF.

7. Place the cover UPSIDE DOWN on a clean work surface. Be careful not to nick or scratch the bottom edge of the sealing surface.

8. Loosen the hex nuts on the element support posts to free the internal components.

9. Loosen and remove the internal components, including the dirty elements (components vary according to housing – see page 1). Pull the elements straight up to remove. Dispose of the elements in an environmentally responsible manner, according to state and/or federal (EPA) recommendations.

⚠️ CAUTION To prevent damage to your engine or equipment, do not allow dirt to fall through the opening of the element support post and into the clean outlet area.
Reassembling the Filter

10. Reinstall the internal components, including the new elements. Note the direction of the arrow on each element and insert the proper end into the housing first. If seal cups are included as part of the internal components, they must be reinstalled, as well.

12. Replace the O-ring cover seal. (If necessary, as long as there are no permanent surface deformations, swelling, nicks, and cracks present, the seal can be reused.)

11. Replace the hex nuts onto the element support posts and tighten until the threads bottom-out.

13. Seat the O-ring cover seal into the flange groove.

14. Carefully replace the cover STRAIGHT DOWN and align the bolt slots in the cover flange with the slots in the housing flange.

⚠️ CAUTION To prevent damage to the cover gasket and the sealing surfaces, DO NOT SLIDE THE COVER ON.
15. Swing the T-bolts into position and tighten all the nuts in a star pattern (similar to replacing lug nuts on an automobile wheel) to assure a uniform seal.

![Figure 11 – Securing the Cover](image)

16. Reinstall the “Dirty Oil” drain plug.

![Figure 12 – Reinstall the “Dirty Oil” Drain Plug](image)

17. Refill the filter manually or by slowly opening the main upstream valve.

18. When the vessel is full, reinstall the vent plug.

![Figure 13 – Replacing the Vent Plug](image)

19. Increase the pressure in the filter slowly. Inspect for leaks around the cover gasket area. If no leaks are visible, increase to operating pressure.

20. Inspect for leaks again.

21. Reconnect electrical power to any accessories.

22. Slowly open the downstream valve, if applicable, placing the unit in service.

23. Read and record the pressure differential of the clean elements.

24. The filter is now operational.

**Suggested Preventive Maintenance**

*Every Filter Change* – Replace the O-ring cover seal.

*Every 12 Months* – Check all fittings for leaks.

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**Ordering Information**

<table>
<thead>
<tr>
<th>C</th>
<th>A</th>
<th>B</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing*</td>
<td>Cover</td>
<td>O-Ring</td>
<td>Plugs</td>
<td>Filter Element</td>
<td>Number of Elements</td>
<td>Internal Component Kit</td>
</tr>
<tr>
<td>95631A**</td>
<td>Q80660A</td>
<td>Q79058</td>
<td>Q69009</td>
<td>82370D</td>
<td>7</td>
<td>990440K</td>
</tr>
<tr>
<td>95731A**</td>
<td>Q80660A</td>
<td>Q79058</td>
<td>Q69217</td>
<td>82620D</td>
<td>7</td>
<td>990440K</td>
</tr>
<tr>
<td>95831A**</td>
<td>Q80660A</td>
<td>Q79058</td>
<td>Q69217</td>
<td>82370D/82620D</td>
<td>(7 each) 14</td>
<td>990441K</td>
</tr>
</tbody>
</table>

* Designed for 75 lb/in² (517.1 kPa) continuous operating conditions.
** Filter does not include an internal by-pass valve. An external by-pass valve can be ordered separately, if required.
Table corresponds to Parts List on initial page.
### Specifications

<table>
<thead>
<tr>
<th>Housing Part Number</th>
<th>Filter Oil Volume qt (L)</th>
<th>Flow Rate* gal/min (L/min)</th>
<th>Element Number</th>
<th>Number of Elements</th>
<th>Efficiency (Particulate Control)</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>95631A</td>
<td>86 (81.4)</td>
<td>45 (170.3)</td>
<td>82370D</td>
<td>7</td>
<td>$\beta_{15} = 2$</td>
<td></td>
</tr>
<tr>
<td>95731A</td>
<td>128 (121.1)</td>
<td>85 (321.8)</td>
<td>82620D</td>
<td>7</td>
<td>$\beta_{15} = 2$</td>
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</tr>
<tr>
<td>95831A</td>
<td>170 (160.9)</td>
<td>100 (378.5)</td>
<td>82370A/82620D</td>
<td>(7 each) 14</td>
<td>$\beta_{15} = 2$</td>
<td>Capacity Exceeds SAE Time Constraints</td>
</tr>
</tbody>
</table>

* Flow rate based on 30 SAE oil at 180 °F (82.2 °C) at 55 lb/in² (379.2 kPa).

**Notes:**
1. Designed for 75 lb/in² (517.1 kPa) continuous operating conditions.
2. Initial assembly differential pressure should not exceed 5 PSID (34.5 kPa).
3. Change element after initial differential pressure increases 5-7 PSID (34.5 - 48.3 kPa), depending on engine age and operating oil pressures. A maintenance professional should make the appropriate application decision.
4. Terminal assembly differential pressure should not exceed 12 PSID (82.7 kPa).

Specifications subject to change without notice.

### Mounting/Dimensions

- **3/4" NPT** Vent
- **2" NPT** Inlet
- **2" NPT** Outlet
- **1/2" NPT** Thermometer Port
- **1" NPT** Dirty Oil Drain
- **1" NPT** Clean Oil Drain
- **16 (406.4) of Clearance Required for Element Replacement for 95631A**
- **32 (812.8) of Clearance Required for Element Replacement for 95731A and 95831A**

<table>
<thead>
<tr>
<th>Housing* Part Number</th>
<th>A Overall Height in (mm)</th>
<th>B Inlet Height in (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>95631A**</td>
<td>31.0 (787.4)</td>
<td>18.0 (457.2)</td>
</tr>
<tr>
<td>95731A**</td>
<td>47.0 (1193.8)</td>
<td>34.0 (863.6)</td>
</tr>
<tr>
<td>95831A**</td>
<td>63.0 (1600.2)</td>
<td>50.0 (1270.0)</td>
</tr>
</tbody>
</table>

* Designed for 75 lb/in² (517.1 kPa) continuous operating conditions.

** Filter does not include an internal by-pass valve. An external by-pass valve can be ordered separately, if required.

### Filter Specification

Composed of a high flow media and a dense cotton/wood blend media section. The high flow media (Controlled Pressure or CP section) permits highly viscous cold oil to flow through the element and filter during cold engine starts. Provides $\beta_{15} = 2$ solid contamination control.